



Short Report

Colonic perforation: A lethal consequence of cannabis body packing

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ABSTRACT

Body packing is one method of smuggling cannabis across international borders. The practice is prevalent in Jamaica. There has been one reported death from this practice in medical literature. We report a second fatal case of cannabis body packing, reinforcing the dangerous nature of this practice.

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Drug smugglers have devised several methods to deliver their product to the lucrative markets in Developed countries. Body packing is the method where smugglers ingest several drug filled packages for transport.^{1–3} The most common drugs transported by body packers are heroin⁴ and cocaine.^{1–6} Reports of cannabis body packing are less common.

Body packing is a potentially dangerous practice, both from a legal and medical perspective. Medical literature contains several reports of mortality from intestinal perforation or acute drug toxicity when body packers attempt to transport heroin^{7,8} and cocaine.^{4,9,11} But a literature search only yielded a single case report of mortality from cannabis body packing in a 40-year-old man who succumbed to intra-abdominal sepsis after distal large bowel perforation.¹¹ We report a case ending in mortality from sigmoid perforation in a cannabis body packer.

1. Case history

A 45-year-old woman presented to the emergency room complaining of constipation, lower abdominal pain and vomiting for three weeks. After closer interrogation, she reluctantly admitted that she had swallowed 88 packets of ganja that she successfully smuggled abroad. However, after several laxatives and enemas, she only passed 30 packets upon arrival at the destination. She had not sought

medical attention at that time for fear of the legal consequences that may have accompanied treatment. Her symptoms began after this, and became acutely worse 72 h prior to presentation.

On examination, she was ill-looking, moderately dehydrated, tachycardic at 105 beats per minute, and pyrexia at 99.5 °F. Significant findings were otherwise confined to her abdomen, the lower aspect of which was distended with peritonitis. The decision was taken to proceed to emergency laparotomy after rapid resuscitation.

The abdomen was entered through a midline incision. A large pelvic abscess was encountered, walled off by loops of terminal ileum, sigmoid colon and the vesical bladder. There were multiple packets of compressed ganja within the abscess cavity (Fig. 1); one of which had ruptured within the abscess cavity (Fig. 2).

After drainage of the abscess cavity, a 4 × 5 cm perforation was noted at the anti-mesenteric border of the sigmoid colon (Fig. 3). A devitalized segment of terminal ileum and a perforation in the posterior wall of the vesical bladder were also found.

After peritoneal toilet, the devitalized segment of ileum was resected followed by a primary anastomosis. A sigmoid colectomy was performed and the colonic ends were exteriorized as an end colostomy and mucus fistula. The vesical bladder perforation was débrided and closed primarily. A supra-pubic catheter and pelvic drain were sited and the abdomen was then successfully closed in layers.

She required inotropic support during the procedure and this had to be continued for the first 72 h post-operatively. She was successfully weaned off inotropic support on day four post surgery and extubated soon afterwards.

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Fig. 1. An intra-peritoneal abscess cavity is encountered within the pelvis and contains several packets of compressed cannabis. The abscess cavity is walled off by small bowel, sigmoid colon and the urinary bladder.

On the tenth post-operative day, she became febrile and developed respiratory distress with an associated ileus. The decision was made to re-explore, at which time a small bowel anastomotic leak and a dehiscence of the bladder repair were noted. The dehiscent bladder ends were débrided and primarily repaired in two layers. The supra-pubic catheter was replaced and extra-peritoneal drains established. The small bowel ends were exteriorized and the abdomen closed after peritoneal toilet and replacement of pelvic drains. Despite empiric antibiotics and fluid resuscitation, she died within 12 h of re-operation due to overwhelming intra-abdominal sepsis.

2. Discussion

The psychoactive constituent of marijuana, Δ -tetrahydrocannabinol (THC), produces several central nervous system effects in users.¹² The most noticeable are the psychoactive effects such as altered behaviour, cognition, perception and performance.^{12,13} Users report a heightening of their senses resulting in a euphoric state with distorted time–space perception.^{13–15} Other cognitive



Fig. 2. Contents of the abscess cavity were evacuated. There was free rupture of one of the cannabis packets within the abscess cavity.

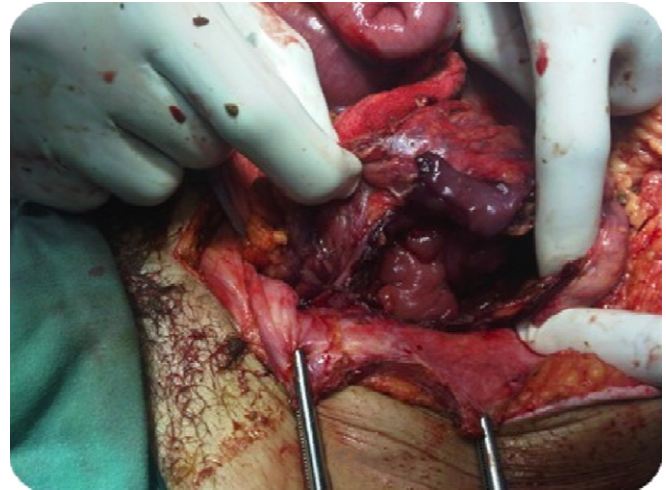


Fig. 3. After evacuation of the abscess contents, a 4 × 5 cm perforation was noted at the anti-mesenteric border of the sigmoid colon.

effects include impaired memory, complex problem solving and motor function.^{13,14}

There are also dose dependent cardiovascular effects, including sinus tachycardia and orthostatic hypotension.^{14,16} The effects are transient and are usually inconsequential in young healthy users without pre-existent cardiovascular disease.

While these effects are reversible, the respiratory consequences are more durable. Compared to tobacco, marijuana smoke is 3–5 fold higher in tar and carbon monoxide content.¹⁷ Users have an increased risk of rhinitis, pharyngitis, bronchitis and respiratory neoplasms.¹⁷ Additionally, most users increase their risk by preparing the marijuana “joint” for smoking without the use of a filter as is customary with cigarettes.

Marijuana is considered an illicit drug and is legally banned in most countries, including Jamaica.¹⁸ Despite considerable progress over the past decade to control the trade,¹⁹ Jamaica remains the largest producer and exporter of marijuana.^{19,20} Most of this marijuana is exported to the United States and Britain.^{1–3,5,6,19–22} Body packing is a common method used because there is a large population of impoverished persons in Jamaica, with over 15% prevalence of unemployment.²² These individuals are lured with financial rewards of up to £5000 (\$9906 US) per successful trip.²²

Most body packers attempt to transport cocaine^{1–6} and/or heroine.^{4,7,8} Although there are a few existing reports in medical literature, cannabis body packing is less common,^{2,22,23} probably due to the smaller profit margin with cannabis compared to cocaine and heroin.

Body packing carries a real risk of acute drug toxicity from drug exposure, bowel obstruction from pellet impaction, and bowel perforation with resultant intra-abdominal sepsis.^{3,24–29}

Acute toxicity is potentially lethal after package rupture with cocaine^{4,9,10} or heroine,^{7,8} but we encountered no reports in the medical literature of fatalities from cannabis toxicity due to package rupture. The effect of marijuana on individual users is quite unpredictable.^{14,30} Many factors determine the individual user's response including the user's baseline personality, current psychological state, previous cannabis use and the quantity of THC ingested.¹⁴

Bowel obstruction is another complications encountered with cannabis body packing, but colonic perforation is notably less common. Traditional wisdom suggested that non-obstructing pellets in the colon carry a low risk of rupture since there are few noxious enzymes in the colon and the pellets are subjected to less turbulence buried within formed stool.³ However, the cases of

bowel perforation encountered occurred in the rectum¹¹ and sigmoid colon.

Although condoms, plastic films and aluminium foil have been used as cover,^{1,3,24} packaging has become more sophisticated over the years. Examination of the un-ruptured pellets in this case revealed that they were consistent with second-generation packaging, with matted contents covered by multiple layers of smooth latex wrapping without ties.³¹ Leakage of these packets is uncommon.³¹

Cannabis is commonly considered to be a “low impact” drug from a social point of view, and has even been legalized for medical purposes in some jurisdictions.³² Even in medical literature, cannabis has been regarded as a “soft drug”³⁰ because of its “lack of life threatening effects, no more damaging than coffee or tobacco”.¹⁴ To the best of our knowledge this is the second documented lethal case of cannabis body packing in medical literature. We believe that this should highlight the danger of cannabis body packing in order to curb this practice.

3. Conclusion

Although there are few reports of medical complications, the practice of cannabis body packing is potentially dangerous. This should be publicized to curb the practice, which remains prevalent in Jamaica.

Conflict of interest

We confirm that there are no existing financial interests or other commitments that may represent potential conflicts of interest for any of the authors.

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